

Appl. No. 10/707,258  
Amdt. dated August 17, 2005  
Reply to Office action of May 18, 2005

**REMARKS/ARGUMENTS**

**1. Amendment to the specification:**

5 The non-descriptive title has been adjusted as per your request. The original title "COLOR FILTER STRUCTURE AND METHOD THEREOF" is now more descriptively prosed as, "OVERLAPPING COLOR FILTER STRUCTURE AND METHOD OF MAKING THE SAME". No new matter is introduced.

10 **2. Rejection of claim 5 under 35 U.S.C. 112:**

Claim 5 has been revised to overcome this rejection. Specifically, the limitation "the color filter structure of claim 3 further comprising a contact plug for connecting the pixel array and the transparent conductive layer" has been replaced with the limitation "the color filter structure of claim 3 further comprising a contact hole for connecting the pixel array and the transparent conductive layer" to overcome this rejection. This limitation finds support in the specification in paragraph [0029] and in Fig.13 for instance, and no new matter is entered.

20 **3. Rejection of claims 1, 6, 10, and 12-13 under 35 U.S.C. 102(b) as being anticipated by Takaochi (US. 4,776,675):**

Claim 1 has been amended to overcome this rejection. Specifically, the limitation "the color filters positioned in a bottom layer of the overlapping region have a first thickness, the color filters outside the overlapping region have a second thickness, and a value of the first thickness is at least half of a value of the second thickness" has been added to claim 1. This limitation finds support in original claim 7 for instance, and no new matter

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is entered.

The Examiner has acknowledged that this limitation would be allowed if rewritten in independent form in the office action. Thus, the amended  
5 claim 1 should be allowed. Claims 6, 10, and 12 are dependent on claim 1, and should be allowed if claim 1 is found allowable. Reconsideration of claims 1, 6, 10, and 12 is therefore respectfully requested.

Claim 13 has been amended to overcome this rejection. Specifically,  
10 the limitation "the second color filter positioned in the overlapping region covers the first color filter, and a thickness of the first color filter in the overlapping region is at least half of a thickness of the first color filter outside the overlapping region" has been added to claim 13. This limitation finds support in original claim 20 for instance, and no new matter is  
15 entered.

The Examiner has acknowledged that this limitation would be allowed if rewritten in independent form in the office action. Thus, the amended claim 13 should be allowed. Reconsideration of claim 13 is therefore  
20 respectfully requested.

4. Rejection of claims 2 and 4 under 35 U.S.C. 103(a) as being anticipated by Takaochi (US. 4,776,675) as applied to claims 1, 6, 10, and 12-13 above and in view of Yamazaki et al. (US. 6,093,934):  
25 Claims 2 and 4 are dependent on claim 1, and should be allowed if claim 1 is found allowable. Reconsideration of claims 2 and 4 is therefore respectfully requested.

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5. **Rejection of claims 3-5, 8, 9, 15, 16, 21, and 22 under 35 U.S.C. 103(a) as being anticipated by Takaochi (US. 4,776,675) as applied to claims 1, 6, 10, and 12-13 above:**

Claims 3-5, 8 and 9 are dependent on claim 1, and should be allowed if claim 1 is found allowable. Reconsideration of claims 3-5, 8 and 9 is therefore respectfully requested.

Claims 15, 16, 21 and 22 are dependent on claim 13, and should be allowed if claim 13 is found allowable. Reconsideration of claims 15, 16, 21 and 22 is therefore respectfully requested.

6. **Objection of claims 7, 11, and 17-20 as being dependent upon a rejected base claim:**

Claims 7 and 20 have been cancelled. Claim 11 is dependent on claim 1, and should be allowed if claim 1 is found allowable. Reconsideration of claim 11 is therefore respectfully requested. Claims 17-19 are dependent on claim 13, and should be allowed if claim 13 is found allowable. Reconsideration of claims 17-19 is therefore respectfully requested.

7. **New claim 23:**

Claim 23 claims a color filter structure of a liquid crystal display (LCD) comprising:

a substrate; and

a plurality of color filters coupling with each other on a surface of the substrate;

wherein an overlapping region exists between any two neighboring color filters, and each of the color filters positioned in the overlapping region has an uniform thickness.

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This color filter structure of claim 23 includes the limitation "each color filter positioned in the overlapping region has an uniform thickness". This limitation enables claim 23 to be distinct from Takaochi's teaching in which the color filters in the overlapping region do not have uniform thickness. Accordingly, the light shielding uniformity of the present application is obviously superior to that of Takaochi's teaching. Consideration of new claim 23 is respectfully requested.

10 8. New claim 24:

Claim 24 claims a method for forming a color filter structure, the method comprising:

- providing a glass substrate;
- forming a first color filter on the glass substrate;
- 15 performing a first photo process with an attenuated mask to form a first pattern and a second pattern in the first color filter layer, the first pattern and the second pattern having different thicknesses; and
- forming a second color filter layer partially overlapping the first color filter layer on the glass substrate; and
- 20 performing a second photo process with the attenuated mask to form a third pattern in the second color filter layer overlapping the second pattern of the first color filter layer, and a fourth pattern having a thickness differing from a thickness of the third pattern in the second color filter layer, the third pattern and the fourth pattern
- 25 being coplanar.

The method of claim 24 includes the limitations "performing a first photo process with an attenuated mask to form a first pattern and a second

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pattern in the first color filter layer, the first pattern and the second pattern having different thicknesses" and "performing a second photo process with the attenuated mask to form a third pattern in the second color filter layer overlapping the second pattern of the first color filter layer, and a fourth  
5 pattern having a thickness differing from a thickness of the third pattern in the second color filter layer, the third pattern and the fourth pattern being coplanar". These steps are patentably distinct from the prior art method, and function to form a color filter structure distinct from that of the cited art. Consideration of new claim 24 is respectfully requested.

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**9. New claim 25:**

Examiner considers that claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any  
15 intervening claims.

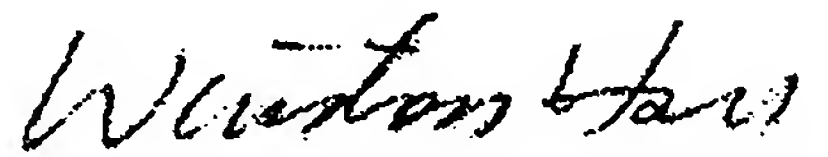
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In response, applicant incorporates the content of claims 10 and 11 into the original claim 1 to form new claim 25. Thus, it is believed new claim 25 is allowable.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

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Sincerely yours,



Date: August 17, 2005

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- 10 Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)